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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/908,953	07/19/2001	Robert W. Schwanke	2001P13007 US	1929

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Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

STERRETT, JONATHAN G

ART UNIT	PAPER NUMBER
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3623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/908,953

Applicant(s)

SCHWANKE, ROBERT W.

Examiner

Jonathan G. Sterrett

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 22-29 and 31-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-29 and 31-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Summary

1. This Final Office Action is responsive to the applicant's amendment of November 20, 2006. The amendment of November 20, 2006, amended Claims 1-12, 18-20, 22-29 and 31-37. Claims 21 and 30 are cancelled and Claims 38-42 are new.

Response to Amendments

2. The prior 112 2nd rejections of claims 1-37 are withdrawn due to the amendments removing the claims' indefiniteness, however the amendments have raised further 112 2nd issues. Please see the 112 2nd rejections below.

Response to Arguments

3. The applicant's arguments have been fully considered, but they are moot in view of new grounds of rejection. Please see the 103(a) rejections below.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-20, 22-29 and 31-42** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding independent **Claims 1, 20 and 29**, the limitation “**wherein the activity specification for each activity includes a schedule rule**” is followed later in the claim by “**the data-triggered workflow engine will evaluate the schedules rules**”.

It is not clear what “the schedules rules” is referring to prior in the claim. It is not known if the applicant meant to say “schedule rules” or “schedules’ rules” or “schedules rules”. If the applicant meant to say “schedule rules” then the claim refers back with proper antecedent basis. If the applicant meant to say “schedules’ rules”, then there is an antecedent problem, since the claim cites “the schedule’s rules” and there is no antecedent basis for schedules in the claim. If the applicant meant to say “schedules rules” as it appears, then it is not clear if the applicant meant for the schedules to be evaluated or for the rules to be evaluated or both to be evaluated. The claim is therefore indefinite. The examiner believes the applicant meant to say “schedule rules” and has interpreted the claim accordingly.

Claims 2-19, 22-28 and 31-42 depend on **Claims 1, 20 and 29**, and are therefore indefinite for at least the reasons cited above for **Claims 1, 20 and 29**.

Regarding **Claims 11, 40 and 42** the phrase “such as” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-20, 22-29 and 31-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies US 2003/0033191.

Regarding **Claim 20**, Davies teaches:

generating a process instance from a process definition which defines activities that are associated with the workflow process,

para 144, the lifecycle model is instantiated (i.e. a process instance is generated) when an appropriate model is selected that defines the activities associated with the process for conducting a project.

wherein the process definition includes an activity specification for each activity associated with the workflow process,

Para 116, the lifecycle model specifies the activities necessary for each project to complete phases and go through the lifecycle to completion. For each of these activities there is a specification of what the activity (i.e. assignment) is, where it occurs in the various phases and the various precedence relationships that define the activity's placement in the process.

wherein the activity specification for each activity includes a rule that specifies one or more conditions under which the activity is initiated for execution based on workflow relevant data, independent of control flow dependencies;

Para 127, the relationships because phases (and their associated activities) are governed by business rules that determine when a product development phase starts and the next begins. This is independent of the definition of the phases as specified by the lifecycle model (para 116), because passage from one gate to another is determined by a gate review (para 120). See also para 185, activities can be carried over to another phase, independent of control flow dependencies that would normally specify them in the prior phase.

and upon the occurrence of a predetermined event, evaluating the schedules rules based on the workflow relevant data to initiate one or more activities for execution, whereby execution of an initiated activity is at the option of a workflow participant.

Para 20, the business (i.e. schedules) rules determine how objects are transitioned from state to state.

Para 23, the business rules govern deliverables that are necessary for completion of a current phase or activity.

Para 292, in the case of workflows associated with deliverables, the user can define whether those workflows are optional or not. These workflows are available to complete the deliverables associated with a phase (see para 262).

Para 261, Some of the deliverables necessary for completion of a phase may be considered optional by the program manager – this also occurs in para 185 where the assignments may be carried over into the next phase, as determined by a workflow participant.

Davies teaches the use of schedule rules to determine when activities are to be executed based on the conditions that preceding activities and requirements (e.g. fulfillment of a gate review to pass to the next phase). Davies does not teach the use of Boolean operators, per se.

However, the use of Boolean operators to determine when conditions are met in a computer program are old and well known in the art. These provide a way to automatically determine if conditions are met so that subsequent steps may be automatically executed or scheduled.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Davies, regarding managing a workflow that uses a number of different phases and activities that require the accomplishment of preceding activities according to preset conditions, to include the step of determining that schedule conditions are met using Boolean operators, because it would help automate the project management approach taught by Davies.

Regarding **Claim 22**, Davies teaches:

wherein the predetermined event includes a change of state of an executed activity.

Para 261, optional activities that can be selected to be executed are automatically started when a deliverable is activated. The deliverables are activated when a project (i.e. program) comes into play (para 144) and occurs at the transition from phase to another (see para

Regarding **Claim 23**, Davies teaches:

wherein the activity specification for each activity includes a permitted rule that specifies one or more conditions under which an activity that is not initiated for execution is permitted to be executed at the option of the workflow participant,

Para 262, the program manager can specify which activities (from those that are optional) are to be executed. See para 264, the checkbox indicating whether an activity is required or not is a "permitted rule", since it indicates that an activity is permitted to be executed at the option of the program manager.

the method further comprising the steps of:

determining if an activity that is not initiated for execution is permitted to be executed based on the activity specifications of the activity, in response to selection of the activity by the workflow participant ; and executing the selected activity if it is permitted.

Para 264, The program manager determines if an activity that is not required (i.e. not initiated for workflow execution as a required activity) may be performed, i.e. it is an optional activity. If the program manager selects the activity, then the activity (i.e. the deliverable) is associated with a resource assignment to execute the deliverable (see para 268).

Regarding **Claim 24**, Davies teaches:

wherein the activity specification for each activity comprises an expected rule that specifies one or more conditions under which the activity is expected to be initiated for execution,

para 144, the life cycle model specifies that conditions that are necessary for the activities within the total lifecycle model to be initiated for execution. The activation of a particular project implies that the activities specified in the process description are expected to be completed.

the method further comprising the steps of:

determining if an activity that is not initiated for execution is expected to be initiated for execution during execution of the process instance based on activity specifications; and preparing for execution of the activity if it is expected to be executed.

Para 147, the program manager prepares for execution of activities in the next phase (i.e. activities that are expected to be executed during instantiation of the next

Art Unit: 3623

phase of the project as specified according to the project life cycle model). This planning includes the program manager receiving activities in their personal workspace.

Regarding **Claim 25**, Davies teaches:

finishing an executed activity, generating a message specifying a state of completion of the activity,

para 183, a gate review indicates a phase is completed (including at least one finished activity for that phase). The gatekeepers will generate a questionnaire (Figure 17) specifying a state of completion of the gate review (i.e. the phase).

recording the state of completion of the activity, and

para 183, Figure 17, the gate review questionnaire records the state of completion of the activity of the gate review.

reevaluating schedule rules of activities, if necessary, based on the state of completion.

Para 185, in the case of a conditional pass of the gate review (i.e. the state of completion of the phase and its associated activities), some of the activities may be carried over into the next phase, i.e. the business rules specifying those activities belonging in one phase are reevaluated for those activities to be carried over into the next phase.

Regarding **Claim 26**, Davies teaches:

wherein the activity specification for each activity comprises a resources specification for listing at least one resource that is needed to execute the activity,

para 163, the role assignment specifies at least one resource that is needed to execute and complete the assignments (i.e. activities) for the project.

the method further comprising:

when two or more activities are initiated for execution at a given time, evaluating the resources specification of the two or more activities that are initiated for execution to determine a suggested sequence of executing the two or more initiated activities, whereby an actual sequence of executing the initiated activities is at the option of the workflow participant.

Para 144, once a program is initiated according to the lifecycle model, a program workspace is added for that program. Para 158, the program manager in the planning phase determines which resources are necessary and how the sequences in that phase may be changed (i.e. modifying phase relationships) – see para 163 for a discussion of the role assignment process. See figure 4a and 5 for illustrations of scheduling examples and an overview of the phased project.

Regarding **Claim 27**, Davies teaches:

automatically routing a data item associated with an activity based on the activity specifications of the activity.

Para 172, the automatic updating of the schedule based on the completion of activities by responsible roles includes automatically includes routing data items regarding timing associated with specific activities to the master schedule which shows those items as being complete.

Regarding **Claim 28**, Davies teaches:

automatically archiving a data item associated with an activity based on the activity specifications of the activity.

Para 178, costs incurred during the program are automatically archived. Para 172, schedule changes are also automatically archived to the master schedule to show how schedule changes expand or contract the schedule. Costs and schedule items are associated with activities based on the specifications of those activities (e.g. complete a certain item by a certain time; and; how much cost was incurred to complete a certain activity).

Regarding **Claim 39**, Davies teaches the limitations above in claim 26, and also where the process definition further comprises an activity network specification comprising one or more relations between activities which are used to determine a suggested sequence of execution two or more activities that are initiated for execution at a given time;

Para 158, after initiation of a project, the program manager can specify the phase relationships used to determine the order (i.e. sequence) of activities for that phase –

see para 126 also, the relationship between deliverables and phases can be modified to suit the particular program. The definition of standard program lifecycles (see para 155) provides for an activity network specification that lays out the phases and deliverables for a program, i.e. including any precedence relationships and sequencing. If the network specification specifies that two activities are scheduled to occur at the same time, then the program manager can redefine the sequencing, ie. according to his option.

Regarding **Claim 40**, Davies teaches where relations between activities as specified by the activity network specifications (i.e. the program lifecycle) include precedence (see Figure 4a example 3 which shows an example of a precedence relationship – also see Figure 5 which shows that all the activities in one phase precedes those of another). Para 185 notes that precedence may be overridden by the program manager in the case of a conditional pass to the next phase. Additionally, some activities may need to be redone (i.e. precedes –back).

Claims 1-19, 29, 31-38, 41 and 42 recite similar limitations to those addressed by the rejection of **Claims 20, 22-28, 39 and 40** above, and are therefore rejected under the same rationale.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Apicella, Mario; "OnContact Integrates Sales and service", Mar 29, 1999, InfoWorld, v21n13, pp.67-68, Dialog 01802126 04-53117.

US 6003011 by Sarin discloses a system for generalizing adhoc workflow processes.

US 6370681 by Dellarocas discloses a flexible workflow system for automating the development of software.

US 6067525 by Johnson discloses a system for work force automation.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 3623

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGS

JGS 2-17-2007

Jonathan G. Sterrett
Primary Examiner
Art Unit 3623